

1 ABSTRACT OF THE DISCLOSURE

2 In one aspect, the invention includes a semiconductor processing
3 method comprising a) forming a metal silicide layer over a substrate;
4 b) depositing a layer comprising silicon, nitrogen and oxygen over the
5 metal silicide layer; and c) while the layer comprising silicon, nitrogen
6 and oxygen is over the metal silicide layer, annealing the metal silicide
7 layer. In another aspect, the invention includes a gate stack forming
8 method, comprising a) forming a polysilicon layer over a substrate; b)
9 forming a metal silicide layer over the polysilicon layer; c) depositing
10 an antireflective material layer over the metal silicide layer; d) forming
11 a silicon nitride layer over the antireflective material layer; e) forming
12 a layer of photoresist over the silicon nitride layer; f)
13 photolithographically patterning the layer of photoresist to form a
14 patterned masking layer from the layer of photoresist; and g)
15 transferring a pattern from the patterned masking layer to the silicon
16 nitride layer, antireflective material layer, metal silicide layer and
17 polysilicon layer to pattern the silicon nitride layer, antireflective
18 material layer, metal silicide layer and polysilicon layer into a gate
19 stack. In yet other aspects, the invention encompasses circuitry and
20 gate stacks.

21
22
23